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ABSTRACT

A comparison of two models of the reading process--the psycholinguistic model, in which learning to read is seen as a top-down, holistic procedure, and the traditional theory model, in which learning to read is seen as a bottom-up, atomistic procedure--is provided in this paper. The first part of the paper provides brief overviews of the following topics: what linguists and psychologists have been investigating on how children learn language, and how their findings have contributed to the psycholinguistic movement; the version of psycholinguistics that developed in the late 1950s from a union of cognitive psychology and transformational generative linguistics; the early work of Noam Chomsky, a pioneer in transformational generative grammar; and the work of psycholinguists Frank Smith and Kenneth Goodman, who believe that the key factors of reading lie in children and their interaction with information. The second part of the paper consists of a chart that outlines differences between the traditional and the psycholinguistic model in ten different areas related to reading, including reading proficiency, the readers' interaction with the text, the way learning takes place, and the goal of instruction. The paper concludes by urging teachers to examine all models in light of what makes the most sense for teaching reading to children in a rapidly changing society. (GT)

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Psycholinguistic Theory of Learning to Read

Compared to

The Traditional Theory Model

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Psycholinguistic theory in reading - What is it? How different is it? Where did it come from and upon what theoretical constructs was it based? Will it ever be generally accepted in the public schools as a viable tool for assisting children in learning to read?

These questions, and others similar in content, tend to dominate the discussions and writings among the current scholars of reading instruction in my country.

The issue tends to divide between the two theoretical camps of those who view the process of learning to read as a bottom-up or atomistic theory and the other side of the coin, who view this same process as a top-down or wholestic procedure. Herein lies the dilmemma. Does the reader go from print to symbol decoding then to meaning or does the reader go from print directly to meaning? This is the major question we will be exploring in this paper.

In order to begin to address this question, we need to look at what linguists and psychologist have been investigating on how children learn language and how their findings have contributed to the psycholinguistic movement.

Jean Malmstrom states in her book Understanding Language: A Primer for the Language Arts Teacher that in studying infant behavior, that is before they learn to speak, psychologists have long seriously considered the question which comes first, thought or language? Modern psycholinguists generally hold that language is an example of a child's mental development and their ability to think. They hold that language is an innate part of human nature.

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This ability to learn and use language distinguishes human beings from all other living creatures. Language is a system of symbols used by human beings to communicate a limitless range of meanings to other human beings who use the same symbol system.

A major concept that linguists have contributed from their studies, has been in the area of children's pre-speech behavior as it appears to reveal their inherent ability to symbolize language.

An example of this symbolized language is when children pretend that a box rigged with a broom and an old sheet is a ship. They are demonstrating their knowledge about ships and about how to use a box and a broom to symbolize key features about ships as they are perceived in the environment. Such play reveals the human ability of children to symbolize concrete and abstract meanings within their language.

Additional examples of linguistic contributions to our knowledge of a child's language acquisition, has come from looking at their development.

The first major period occurs at a period of time around 12 months where one begins to see what is called holophrastic speech.

It is at this phase that children direct meaning through changes in their intonation patterns.

By way of example, a child usually produces the word "Daddy" early in holophrastic speech. They can change their intonation pattern in the following manner "Daddy.', Daddy? or Daddy." We see that the child can be conveying the meaning (Daddy!) Come here! In the second example the child sends the message (Daddy?) to mean Where is Daddy? Finally the utterance (Daddy) Here is Daddy.

It was from these, and similar, kinds of studies replicated over and over in the disciplines of psychology and linguistics that psycholinguistics began to emerge.

In 1940 the psycholinguistic movement tended to contain knowledge from behavioral psychology and structural linguistics and what then emerged was an emphasis on observable human behavior and the language patterns of students.

In the late 1950's another version of psycholinguistics developed. This time it was from a union of cognitive psychology and transformational generative linguistics.

Cognitive psychology emphasized the aspect of language learning while transformational generative grammar emphasized the mind and especially its innate competence to learn and use language in a natural manner.

A pioneer in the area of transformational generative grammar was Noam Chomsky. While working at the Massachusetts Institute of Technology, Chomsky developed a position that was not only unique within linguistics at the time, but is probably unprecedented in the whole history of the subject.

His first book on the subject, Syntactic Structures, was published in 1957 and though it was a brief and non-technical work, it did revolutionize the scientific study of language. Now at the age of fifty one he speaks with an authority on all aspects of grammatical theory.

This is not to say that all linguists have accepted the theory of transformational grammar that Chomsky put forward some twenty five years ago. They have not!

There are at least as many recognizable different schools of linguistic thought throughout the world as there were before the Chomskyan revolution, but the transformationalists or Chomskyan school is not just one among many. Right or wrong, Chomsky's theory of grammar is undoubtedly the most dynamic and influential in the field. Linguists who now wish to keep abreast of current developments in this subject can't afford to ignore Chomsky. Every other school of linguistics tend to define its position in relation to Chomsky's views on particular issues.

One may question at this point what is the connection between Chomsky's work in transformational generative grammar and the growing interest in the area of psycholinguistics?

Following Chomsky's contributions in the area of language, a number of other theorist such as Frank Smith in Canada, Kenneth and Yetta Goodman at the University of Arizona (formerly at Wayne State University) and John Downing at Victoria University, in addition to many others around the world, began to focus their interests on how people acquire and use language.

These theorists began to discover and report in their writings that students had a natural ability for language. These students needed only a supportive environment for language to develop. They tended to feel that language was more than what the eye saw or the ear heard. There were two separate levels of functioning within language, a surface level and a deep structure which called for different skills. This soon developed a belief that language acquisition was closely akin to how a student learns to read.

Of the theorist listed above, Frank Smith emerged as one of the most articulate spokespersons for the psycholinguistic theory. Smith indicates to his readers that the child has acquired spoken language skills by making assumptions about what are relevant elements and relations of the language, looking for significant differences in the physical representations of speech, establishing his or her own grammatical and semantic categories and rules, testing hypothesis on a trial and error basis and learning through feedback whether a rule applies or not. This, he maintains, is the same learning proficiency that is most important in learning how to read. The assumption indicates that a child may need to be motivated to learn but does not need to be taught how.

Therefore, Smith feels that what children must do when they learn to read is to establish usual patterns for the set of features that they will utilize as words in the orthographic system. In the spoken language, the child must relate print and meaning. In speech, meaning is related to the orthographic system. Both, however, rely on the knowledge the child has of the language.

Smith maintains that a child coming to reading instruction has had experience with all of the cognitive skills involved in learning how to read.

What the child needs to know is what does and what does not make a difference in reading. Many of the significant differences of the written language cannot be taught; they must be discovered by the learner.

Kenneth Goodman, along with Smith, feels that efficient reading does not result from precise perception and identification of all elements, but rather from skill in selecting the fewest most productive cues necessary to produce attempts which are correct the first time. The ability to anticipate that which has not been seen is vital in reading, just as the ability to anticipate what has not been heard is vital in listening.

Smith and Goodman state that a psycholinguistic approach to reading would be the very antithesis of a set of instructional materials.

They feel that psycholinguistic analysis formally confirms what we have all known intuitively for years - that the key factors of reading lie in the child and his/her interaction with information - rather than in the materials that are used.

Goodman introduces us to the term miscue that has come to be highly identified with his work and that of his students.

He views miscues not as careless mistakes, but as traces of the tentative processing of minimal clues. He then feels that reading is an interactive process between the reader and the printed page. It is not the plodding act of processing one fixation after another.

Both of these theorists state that there is an imposing body of knowledge about how fluent language users construct and perceive words and sentences. This research confirms the linguistic insight that language is processed at a deep structure level. They point out that we remember meanings, not the individual words. We distinguish the relationships that are not actually represented in the surface structure but are constructed from the meanings that are devised from the hidden deep structure.

Smith and Goodman do not deny that there might be a psycholinguistic approach or attitude toward reading. They quickly point out that if there is to be such an approach the adjective psycholinguistic would be synonymous with objective, analytical or scientific. But such use of the term as a psycholinguistic primer or psycholinguistic kit would be using an adjective that is devoid of any meaning.

Goodman's theory of the reading process is significantly different from that expressed in the Traditional Model. For Goodman, reading is a meaning - constructing rather than a meaning - extracting process.

In looking at psycholinguistic theory, it is most helpful to compare the major points to concepts we already know.

The following statements are just such a comparison between the Traditional Theory Model and the Psycholinguistic Model. These statements are made through a definition of reading that is shared by both models.

Reading is a Complex process in which a reader tries to reconstruct a message that has been encoded by a writer.

Areas where the two models are not in agreement are as follows:

Traditional Theory Model	Psycholinguistic Model
A. Reading is an exact process in that the closer the student comes the student comes to the printed word the greater the proficiency is viewed.	Reading is not an exact process. It is not hieradhical by nature. The act of reading is viewed in terms of comprehension and how proficient a reader is, is based on the meaning that is derived.
B. The reader's action is one of reaction. It is based on the principle of a stimulus and response.	The reader interacts with a field of knowledge. He/she adds to what is already known of the world. The reader never starts at a point of zero. There is always previous knowledge that an individual has as a resource to filter through while deriving new meaning.
C. Learning takes place by establishing a connection between a stimulus and the response.	The reader is actively processing information into new forms and categories. The reader does not just reflect stimuli received, but rather adds to a previous established set of knowledges as new categories are developed.

D. The goal of instruction in this model is to observe a change in the behavior of the student.	The goal of instruction is to assist students to understand significant problems within the situation and to hypothesize what is relevant and what is irrelevant data.
E. Humans separate skills into a hierarchical sequence to perform any complex task.	Humans select information and form hypotheses that they test and modify based on their returning data.
F. Learning to read is an atomistic, hierarchical procedure. It proceeds from the bottom up (letters, sounds, words, etc.) to meaning.	Learning to read is a wholestic procedure which allows the learner to hypothesize based on what she/he already knows. Reading is a top down process that begins with meaning.
G. Reading is primarily word recognition. The initial and important cues to reading are those within words. Therefore, phonics is the natural starting point for reading instruction.	Reading is an active process of reconstructing meaning from one's total surroundings not merely from the printed page. Word recognition is initially a more difficult task for a child than reading meaning. Cue systems within the flow of language and within their conceptual framework are more important than those within words. The language power a child brings to school doesn't begin to be utilized through phonics.
H. Readers must learn to associate sounds with letters before they can learn to read. Meaning can be secondary in the early stages of reading while learners break the sound-letter code.	Students acquire and use language and meaning in their oral language long before formal reading instruction begins in school. Students use an implicit knowledge of sound structure when speaking. Early analysis of sound-letter correspondence moves a child away from their natural use of language.
I. Beginning reading occurs at approximately age five. We have experts like Bruno Bettelheim who advocate reading instruction begin at 7 years of age.	Beginning reading occurs when the organism develop a nervous system. The child demonstrates visual skills at birth provided the mother has not been anesthetized. The infant continues to focus and refocus, gaining in comprehension during the entire process. Time matters not. It is the experience the child has during the passage of time that matters.
J. The person who reads well usually is better able to understand him or herself and others, to develop and use the power to describe, explain and persuade others, to analyze, organize, create and expand concepts.	As a child's concepts and vocabulary grow through active and deliberately planned encounters in the environment, she/he will approach the reading situation with conceptual readiness and security which allows reading for meaning to become reality. Deliberate work with the child's conceptual skills will develop his/her reading abilities.

As we come to the close of this paper, we have attempted to look at the reading process from two points of view. First from that of the traditional model and secondly from that of the supporter of the psycholinguistic model.

In addition, we have tried to answer the questions posed in the introduction of this paper. We are left with one of those questions unanswered. That one is, "Will psycholinguistics ever be generally accepted in the public schools as a viable tool for assisting children in learning to read?" We really can't answer that question as we look forward to the 1980's.

We do have evidence that the concept of psycholinguistics is growing with each passing year. We do have evidence of the growing interest in the writings and publications dealing with psycholinguistics. We do have the evidence of the increased number of people who are able to clearly delineate the philosophical difference between the traditional and the psycholinguistic models. Yet the answer to the question posed remains quite subjective.

As discussions continue between supporters of these two theoretical models, we educators must keep our focus constantly on the child of the 1980's. This will be a child whose world will no longer be limited by the jaw bone of their teacher or the use of a single reading text. All sources of stimulation will have to be used; many books, many materials, the community outside of the school as well as the world at large. These will be the directions for the learner in the next generation that are educated in our schools.

As teachers, we will need to examine these and all other emerging models in light of what makes the greatest degree of sense for assisting children in their learning to read when they are living in so rapidly a changing society.

BIBLIOGRAPHY

Carroll, John, "The Nature of the Reading Process." In H. Sinder and Robert Ruddell (Eds.), Theoretical Models and Processes of Reading. Newark, Delaware: International Reading Association Press, 1970.

Chomsky, Noam, Aspects of a Theory of Syntax. Cambridge, Massachusetts: M.I.T. Press, 1965.

Downing, John and Peter Oliver, "The Child's Concept of a Word." Reading Research Quarterly, vol. ix, 1974.

Goodman, Kenneth, "Reading: A Psycholinguistic Guessing Game," Journal of Reading Specialist, 6, Neward, Delaware: International Reading Association Press, May, 1967.

Goodman, Kenneth, The Psycholinguistic Nature of the Reading Process. Detroit: Wayne State University Press, 1968.

Goodman, Kenneth, "Decoding - From What?", Journal of Reading. Newark, Delaware: International Reading Association Press, April, 1971.

Goodman, Yetta, Pre-Schoolers' Book Handling Knowledge Survey. (See Annex A).

Malstrom, Jean, Understanding Language: A Primer for Language Arts Teachers, Newark, Delaware: International Reading Association Press, 1973.

Smith, Frank and Kenneth Goodman, "On the Psycholinguistic Method of Teaching Reading." Elementary School Journal, 71, January, 1971.

Smith, Frank and Kenneth Goodman, Comprehension and Learning: A Conceptual Framework for Teachers. New York: Holt, Rhinehart, Winston, 1975.

Smith, Frank, "Learning to Read by Reading," Language Arts, March, 1976.